



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,108	10/12/2001	Denis Estreich	DP-305388	3209

7590 03/19/2004
MARGARET A. DOBROWITSKY
DELPHI TECHNOLOGIES, INC.
Legal Staff, Mail Code: 480-414-420
P.O. Box 5052
Troy, MI 48007-5052

EXAMINER

MERCADO, JULIAN A

ART UNIT PAPER NUMBER

1745

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/977,108	Applicant(s) ESTREICH ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5-9, 12 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-9, 12, 15-24, 26 is/are rejected.
- 7) ☐ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed October 31, 2003.

Claims 2, 3, 4, 10, 11, 13 and 14 have been canceled. Claims 1, 5-9 and 12 and 15-26 are pending.

Claim Objections

The objection to claim 8 has been withdrawn.

Claim Rejections - 35 USC § 112

The rejection of claim 5 under 35 U.S.C. 112, second paragraph has been obviated by applicant's amendment.

Claim Rejections - 35 USC § 102(b)

The rejection of claims 1 and 5-7 under 35 U.S.C. 102(b) based on Sawada et al. (U.S. Pat. 5,709,966) has been withdrawn. Independent claim 1 has been amended to recite that each of the positive posts and negative posts protrude in the same direction. By this language it is understood by the examiner that all the posts protrude in the same direction (and not the alternate interpretation of all the positive posts protruding in one direction, and all the negative posts protruding in another direction while not necessarily the same direction). In Sawada et al., Figure 6 shows that the positive posts [31] protrude left and the negative posts [32] protrude right

Art Unit: 1745

for a given plate assembly [20]. Thus, Sawada et al. does not teach or suggest that each of the positive posts and negative posts protrude in the same direction.

The rejection of claims 1, 7 and 8 under 35 U.S.C. 102(b) as being anticipated by Uba et al. (U.S. Pat. 4,346,151) has been withdrawn in view of the new ground of rejection under 35 U.S.C. 103(a) set forth below.

The rejection of claim 9 under 35 U.S.C. 102(b) based on Liautaud et al. (U.S. Pat. 4,532,194) has been withdrawn. Independent claim 9 has been amended to recite that one end of the battery housing is a partially open end wherein a positive post and negative post are arranged. Liautaud et al. does not teach or suggest this feature.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5-9, 12, 15-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uba et al. in view of Sawada et al.

The rejection is maintained for the reasons previously discussed for claims 2-6 and 12-14 based on the same. The examiner notes that independent claims 1 and 12 have been amended to recite the limitations of dependent claims 2-4, specifically, a plurality of retaining walls defining a plurality of receiving areas which receives a lead insert (from dependent claims 2 and 3) and

Art Unit: 1745

the plurality of retaining walls having the positive and negative posts pass through. These limitations have been considered in full and discussed in the prior Office action. The examiner notes that independent claim 1 has been further amended to recite that each of the positive and negative posts are positioned to protrude in the same direction. However, as discussed in the prior Office action, in Uba et al. the inner cover or lid member [110] allows for the positive and negative posts to extend therethrough, "[t]abs 62 emanating from one plate are attached to post members 63 and a sealed connection take out through lid member 110 via externally expanded rivet member 120 and terminal tab 124. Similarly for the opposite polarity plate rivet member 122 and terminal tab 126 are brought through the lid." (col. 4 line 21-26, also applies to dependent claims 19-21) That is, in Uba et al. the positive and negative posts comprise rivet members [120] and [122], respectively, which point in the same direction, i.e. upward, as they extend through the lid member [110]. An outer cover [16] is shown in Figure 1. (applies to dependent claim 26)

Independent claim 9 is noted by the examiner as amended to recite a battery housing and a plurality of outer housings comprising a battery cell. This feature is considered shown by Uba et al. in Figures 9-11, wherein a battery housing [135] houses a plurality of battery cells each in its own battery housing [136-1]. (col. 4 line 59 et seq.) The amendment introducing the language "partially open end portion" appears to be drawn to the top portion of the battery which allows for the positive and negative posts to extend therethrough. As discussed and maintained above, Uba et al. teaches the positive and negative posts to point towards the top portion of the battery as they extend through the lid member [110]. Additionally, as discussed above the batteries are in an alternating arrangement as they are connected in series. (also applies to

Art Unit: 1745

dependent claims 15 and 22) With respect to the "transitional portion" as further amended, this limitation is given its broadest reasonable interpretation as a portion in the battery housing which is intermediary to a lower end portion and an upper portion. In Uba et al., the sides of the battery housing reads on this feature consistent with this interpretation, especially in view of Uba et al.'s teaching that the cell housings are received within a complementary area in the battery housing so as to ensure a "snug fit". (col. 2 line 68) As to an "angled portion", applicant's specification discloses that the angled portion may have a circular or non-linear arrangement (page 7, 1st par.), thus, Uba et al.'s snug-fit complementary circular battery housing is considered to read on this feature. (applies to dependent claim 24)

Regarding dependent claims 16 and 23, Figure 7 shows that the plurality of cells are adjacent to each other from a first end to a second end, with a positive terminal [18'] at one end and a negative terminal [20'] at the other end. (col. 4 line 41-42)

As to lead inserts disposed within the receiving areas, Uba et al. teaches tip portions [68] of the positive and negative posts which pass through an intercell connector [72], thereby connecting adjacent cells in series. (Figure 3, also applies to dependent claims 6, 7) This intercell connector is for prevention of intercell creepage of electrolyte. (col. 3 line 18-20) While Uba et al. does not explicitly teach these connectors as made of lead, Sawada et al. teaches a lead insert as an intercell electrically connecting member. (see Sawada et al., col. 8 line 66 et seq.) The skilled artisan would find obvious to employ lead inserts in Uba et al. for reasons taught by Uba et al. such as maintaining stability to the electrolyte and corrosion resistance. (*ib*)

Regarding dependent claims 5 and 18, while Uba et al. does not explicitly teach an O-ring, Sawada et al. teaches openings in the inner cover having a resin of an O-ring shape in cross-

section. (col. 10 line 19-22) Thus, the skilled artisan would find obvious to employ an O-ring in Uba et al.'s invention for reasons such as resisting electrolyte "between the intercell electrically connecting member 4 and the partition wall 15". (*ib*)

Response to Arguments

The examiner notes that no salient arguments for patentability were submitted with the present amendment.

Allowable Subject Matter

Claim is 25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record and to the examiner's knowledge does not teach or suggest the instant invention regarding an angled portion configured to engage a complimentary feature of the battery housing and defined as a transitional portion between an upper portion and a lower portion of the battery housing.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 1745

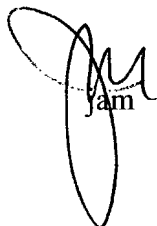
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam



Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700